REMARKS

Applicant respectfully requests reconsideration of this application and consideration of the following remarks.

Claims 20-96 were rejected under 35 U.S.C. 103(a). The independent claims, claims 20, 32, 55, 62, 76 and 83, were rejected in view of Yamakado (U.S. Patent No. 6,014,133) and Magallanes (U.S. Patent No. 5,925,103); and additional references were relied upon for the additional limitations cited in the dependent claims. Particularly,

1) claims 20, 21, 32, 34, 44, 55, 62, 64, 68, 76, 83, 85 and 89 were rejected as being unpatentable over Yamakado in view of Magallanes;
2) claims 33, 63 and 84 were rejected as being unpatentable over Yamakado-Magallanes and further in view of Dorricott (U.S. Patent No. 6,125,209);
3) claims 22, 24, 35, 36, 38, 41-43, 56, 57, 65, 67, 77, 78, 86 and 88 were rejected as being unpatentable over Yamakado-Magallanes and further in view of Gardell (U.S. Patent No. 6,049,831);
4) claims 23 and 39 were rejected as being unpatentable over Yamakado-Magallanes-Gardell and further in view of Ouellette (U.S. Patent No. 5,581,243);
5) claims 25, 37, 40, 66 and 87 were rejected as being unpatentable over Yamakado-Magallanes-Gardell and further in view of Clough (U.S. Patent No. 5,379,057);
6) claims 26-31, 45-51, 58-61, 69-74, 79-82 and 90-65 were rejected as being unpatentable over Yamakado-Magallanes and further in view of MacLeod (U.S. Patent No. 5,778,092); and
7) claims 52-54, 75 and 96 were rejected as being unpatentable over Yamakado-Magallanes and further in view of Cronin (U.S. Patent No. 6,182,127).

Applicant respectfully disagrees. No claim is currently amended. Claims 20-96 are pending. Applicant respectfully requests reconsideration of the pending claims in view of the following remarks.

Applicant respectfully requires the examiner carefully consider the description of Yamakado (Col. 17, lines 46-48), which needs to be interpreted in the context of the description of Col. 17, line 46 – Col. 18, line 5.

In Yamakado, the scrolling at the host computer drives the scrolling at the terminal. From the description of Yamakado, it is understood that the scrolling at the terminal of Yamakado is completely controlled by the host computer in order to follow the scrolling at the host computer, since the purpose of the terminal of Yamakado is to replicate the screen display of the host computer. In Yamakado, there is no indication that the bit-mapped data of the screen image is larger than the screen of the terminal.

Applicant respectfully submits that the host computer displaying an image larger than the screen of the terminal cannot be interprated as that the image being transmitted from the host computer of Yamakado is larger than the screen of the terminal. Applicant respectfully submits that the image displayed on a host computer is distinguishable from the screen image transmitted from the host computer to the terminal. The advisory action shows that "therefore one can analyze explicitly that the image that is presented by the server can be larger than the screen area at the terminal ...". However, it is clear such an image displayed at the server cannot be appropriately considered as an image transmitted. In Yamakado, what is transmitted is the screen data and copy commends which is used to reduce the amount of data transmitted when the scrolling on the host computer occurs. Note, for example, claim 20 recites "sending, from the server to the remote device, the image in a compressed format as a response to the request for the document".

In Yamakado, the terminal computer draws the screen using a copying process when the image on the host computer is scrolled. Thus, there is no motivation to scroll the screen image at the terminal under the terminal's exclusive control. In Yamakado, there is no discussion of scrolling at the terminal independent from the scrolling at the host computer. In Yamakado, the scrolling at the terminal is driven by the scrolling at the host computer. For example, Col. 18, lines 10-14, of Yamakado shows:

> "regarding the scroll action, it is possible to compress the data by detecting the matching lines of the previous screen 12a and the present screen 12b, determine that it has scrolled if n lines or more are matched, and employ the copy command in the same manner as the previous example" (Col. 18, lines 10-14, Yamakado)

From this description (Col. 18, lines 10-14, Yamakado), it is clear that the host computer determines whether or not it scrolled through matching lines of the previous screen. If it scrolled, the host computer sends a copy command to the terminal for the scroll action. To perform the scroll action, the host computer determines the lines that can be copied and send the copy command to the terminal to avoid re-transmitting these lines. Further, Col. 17, lines 46-50, of Yamakado describes:

> "After having sent the bit-mapped data to the terminal 6, command controls such as scrolling, etc., at the terminal end may be performed. Such commands may be transferred along with the bit-mapped data to the terminal 6 end from the transmitting host end, being the POS equipment 2." (Col. 17, lines 46-50, Yamakado)

Since "such commands" are transmitted from the host to the terminal, it is apparent that the scrolling at the terminal of Yamakado is under the control of the host computer. Thus, the

entire description of scrolling in Yamakado (e.g., from line 46 of Col. 17 to line 17 of Col. 18, Yamakado) does not have a suggestion of a terminal scrolling under its exclusive control. In Yamakado, the scrolling at the host computer causes the appearance of scrolling at the terminal. This cannot be considered as scrolling, under the exclusive control of the terminal in response to user input at the terminal; and it is not the scrolling of an image rendered from an entire document.

Applicant respectfully submits that at least some of the descriptions of Yamakado that were relied upon for the rejections do not fully meet the claim limitations recited in the independent claims of the pending claims. A detailed analysis is provided below.

Yamakado discloses an apparatus for transmitting host computer **screen data** to the terminal as the bit-mapped data for screen display. In Yamakado, the terminal is used as a remote display device. The screen display of the host computer is replicated at the terminal through transmitting the screen data from the host computer to the terminal. The screen data on the host computer screen is transmitted for display on the terminal so that a user in front of the terminal can see the screen display of the host computer. For example, the description on lines 3-5 of the abstract of Yamakado shows "screen data is transmitted to the terminal as the bit-mapped data constituting that screen, and screen display is performed".

A person skilled in the art understands that a screen image is very different from an image rendered from an entire document that is larger than the screen. When the image of the entire document is larger than the screen, the screen image cannot be the image of the entire document; and the fixed size limitation of the screen image (e.g., 640×480 or 1024×768) does not allow the image of the entire document to be generated as a screen image in response *a request* for a document. The teaching of transmitting a screen image cannot be taken as the teaching of transmitting the image rendered from the *entire* document. In Yamakado, a screen image is transmitted from the host computer to the terminal to

reproduce the screen display of the host computer. Such an approach is very different from using a server to render the entire document requested by the remote device into an image that is larger than the screen so that the image of the entire document can be selectively display by the remote device without further help from the host. In one embodiment of the present invention, the image rendered from an entire web page is transmitted to the portable device so that the portable device can scroll the image according to the user input without repeatedly downloading from the server.

Yamakado does not discuss how a document is displayed. Since only the screen image is transmitted from the host computer to the terminal in Yamakado, it is apparent that the host computer of Yamakado does not organize the screen images into an image for a document; and it is also apparent that the terminal of Yamakado cannot assemble an image of an entire document out of screen images. The host computer of Yamakado does not render the entire document into **an** image that is larger than the screen.

Thus, the screen image of Yamakado cannot be considered as an image rendered from the entire document that is larger than the screen. For example, claims 20 and 32 recite:

> 20. (previously presented) A method implemented on a server to serve documents, the method comprising:
>
> receiving, at the server from a remote device, a request for a document, the document including text and one or more links;
>
> rendering, at the server and for displaying on a screen attached to the remote device, an image from the entire document in response to the request, the image being larger than a screen area on the remote device available for displaying the document; and
>
> sending, from the server to the remote device, the image in a compressed format as a response to the request for the document.

32. (previously presented) A method implemented on a portable device to access remote documents, the method comprising:

sending, from the device to a remote server, a request for a document, the document having vector information including text;

receiving, at the device, an image in a compressed format from the remote server, the image being rendered at the remote server from the entire document in response to the request;

storing the image in the compressed format on the device; and

according to a user input to the device, selectively displaying only a portion of the image on a screen attached to the device according to the image stored on the device.

Further, even if the system of Yamakado were modified to allow the host to receive a request for a web site, as suggested in the Office Action as being motivated to access Internet in view of Magallanes, the host of Yamakado would not render the entire web page, if the web page cannot fit into the screen. A user at the terminal would have to send multiple requests to the host computer to operate the host computer to produce multiple screen images in order to view the different portions of a web page. This is very different from in response to ***a request for a document***. Thus, even if Yamakado were combined with Magallanes, the feature of "rendering, at the server and for displaying on a screen attached to the remote device, an image from the entire document in response to the request, ..." is not in Yamakado and Magallanes. Similarly, the combination of Yamakado and Magallanes does not meet the limitation of "sending, from the server to the remote device, the image in a compressed format as a response to the request for the document" and "receiving, at the device, an image in a compressed format from the remote server, the image being rendered at the remote server from the entire document in response to the request".

Further, Applicant respectfully submits that the description of scrolling in Yamakado does not meet the corresponding limitations recited in the pending claims. In Yamakado, the scrolling at the host computer drives the scrolling at the terminal. From the description of Yamakado, it is understood that the scrolling at the terminal of Yamakado is completely controlled by the host computer in order to follow the scrolling at the host computer, since the purpose of the terminal of Yamakado is to replicate the screen display of the host computer. In Yamakado, there is no indication that the bit-mapped data of the screen image is larger than the screen of the terminal. Thus, there is no motivation to scroll the screen image at the terminal under the terminal's exclusive control. In Yamakado, there is no discussion of scrolling at the terminal independent from the scrolling at the host computer. In Yamakado, the scrolling at the terminal is driven by the scrolling at the host computer. For example, Col. 18, lines 10-14, of Yamakado shows:

> "regarding the scroll action, it is possible to compress the data by detecting the matching lines of the previous screen 12a and the present screen 12b, determine that it has scrolled if n lines or more are matched, and employ the copy command in the same manner as the previous example" (Col. 18, lines 10-14, Yamakado)

From this description (Col. 18, lines 10-14, Yamakado), it is clear that the host computer determines whether or not it scrolled through matching lines of the previous screen. If it scrolled, the host computer sends a copy command to the terminal for the scroll action. To perform the scroll action, the host computer determines the lines that can be copied and send the copy command to the terminal to avoid re-transmitting these lines. Further, Col. 17, lines 46-50, of Yamakado describes:

> "After having sent the bit-mapped data to the terminal 6, command controls such as scrolling, etc., at the terminal end may be performed. Such commands may be transferred along with the bit-mapped data to the terminal 6 end from the transmitting host end, being the POS equipment 2." (Col. 17, lines 46-50, Yamakado)

Since "such commands" are transmitted from the host to the terminal, it is apparent that the scrolling at the terminal of Yamakado is under the control of the host computer. Thus, the entire description of scrolling in Yamakado (e.g., from line 46 of Col. 17 to line 17 of Col. 18, Yamakado) does not have a suggestion of a terminal scrolling under its exclusive control. In Yamakado, the scrolling at the host computer causes the appearance of scrolling at the terminal. This cannot be considered as scrolling, under the exclusive control of the terminal in response to user input at the terminal; and it is not the scrolling of an image rendered from an entire document.

Thus, the description of Yamakado relied upon for the rejection does not meet the limitation of "according to a user input to the device, selectively displaying only a portion of the image on a screen attached to the device according to the image stored on the device" and "scrolling the image on the screen at exclusive control of the device" (see, e.g., claim 34).

The Office Action asserted that Yamakado (Col. 17, lines 46-48) show "the terminal is capable of scrolling the image. Only portions of the document that the user wishes to see are being displayed." However, such an assertion has not support in Yamakado. It is the teaching of the present invention to send the image of the entire document so that a user can scroll to see the portions the user wishes to see.

It is understood that the screen image of Yamakado is significantly different from the image rendered from an entire document, including text, graphics, hyper links in html, java, etc. When the screen is scrolled on the host computer, the display at the terminal is updated

accordingly. If a user scrolls to a location then scrolls the location off the screen and scrolls back to the location, the same location would have to be re-transmitted to the terminal, since the location was off screen and cannot be copied from the previously screen image. Thus, the screen image of Yamakado cannot be considered as the image rendered from an entire document that is larger than the screen.

Claims 55 and 62 recite machine readable media containing executable computer program instructions which when executed by a data processing system cause the system to perform the methods of claims 20 and 32, respectively. Claims 76 and 83 recite a server and a portable device for performing the methods of claims 20 and 32 respectively. Claims 21-31, 33-54, 56-61, 63-75, 77-82 and 84-96 depend from claims 20, 32, 55, 62, 76 and 83 respectively. Thus, claims 21-96 are patentable over the cited references at least for the above reasons.

Further, claim 44 recites:

> 44. (previously presented) The method of claim 32, further comprising:
> retrieving at least a portion of an image of a previously requested document from a memory of the device, the image of the previously requested document being previously received from the remote server and stored in the memory of the device in a compressed format; and
> displaying at least the portion of the image of the previously requested document.

Col. 15, lines 18-35, of Yamakado was relied upon for the limitation of "retrieving at least a portion of an image of a previously requested document from a memory of the device". However, Col. 15, lines 18-35, of Yamakado includes two paragraphs. The first paragraph, lines 18-26, describes the operation of the terminal; and the second paragraph, lines 27-36, describes the operation of the host computer. Both the host computer and the terminal

operate on images organized as screens, not as requested documents. Further, claim 44 depends from claim 32, which is a "method *implemented on a portable device* to access remote documents". There is no indication in Yamakado that the terminal of Yamakado can retrieve an image of a previously requested document. Further, there is no indication that the terminal of Yamakado stores multiple screen images so that it can display a previously saved screen image after displaying the current screen image. Thus, the withdrawal of the rejections for claims 44, 68 and 89 is respectfully requested.

Further, claim 41 recites:

> 41. (previously presented) The method of claim 32, further comprising:
> receiving text inputs at the device;
> storing text characters in a text file on the device according to the text inputs;
> retrieving the text characters from the text file; and
> sending, from the device to the remote server, a message to enter the text characters into the document on the remote server at a location corresponding to a location on a portion of the image displayed on the screen.

Col. 4, lines 39-46, of Gardell was relied upon in the rejection for the claim limitation "retrieving the text characters from the text file; and sending, from the device to the remote server, a message to enter the text characters into the document on the remote server at a location corresponding to a location on a portion of the image displayed on the screen". However, Col. 4, lines 39-46, of Gardell relates to the processing of a web page at the server. Note that claim 41 depends from claim 32, which is a "method *implemented on a portable device* to access remote documents". In Gardell, the HTML UI definitions are generated for the corresponding user interface elements of web page. Col. 4, lines 39-46, of Gardell shows:

> "For example, the scan may discover a text input field. A corresponding HTML UI definition is created which encodes the appearance of the text input field, the location of the text input field, and any other characteristics the text input field might have. The definition may include default values for the text. Other examples include radio buttons, check boxes, hot spots, hot links in the text itself, and graphics images that are pickable." (Col. 4, lines 39-46, Gardell)

This description shows that after scanning a web page to discover a text input field, a corresponding HTML UI definition is created. The HTML UI definition for the text input field is then transferred to session manager 154 and transmitted to client interface 112 (see, Col. 4, lines 47-49, Gardell). All these operations are performed on the server 114, not on the remote device. In this description of Gardell, there is no indication of the remote device *retrieving* the text characters *from the text file* and *sending a message to* the server *to enter* the text characters into the document *on the server*. Thus, Gardell does not have teaching/suggestion for a particular arrangement as recited in claim 41. When viewed as a whole, Yamakado, Magallanes and Gardell do not fairly suggest the subject matter as claimed. The withdrawal of the rejections for claims 41, 67 and 88 and their dependent claims is respectfully requested.

Further, claim 33 recites:

> 33. (previously presented) The method of claim 32, wherein the image comprises a plurality of sections; a first section of the plurality of sections that is not displayed on the device remains compressed on the device while one or more sections of the plurality of sections corresponding to the portion of the image displayed on the device are decompressed.

In one embodiment of the present invention, the image rendered from a remote document at a server is in a number of sections. The one or more sections that are currently on the display of the portable device is decompressed for display while other sections *remain compressed.* However, Dorricott (Col. 7, lines 9-18) teaches to decompress and cache the images that are not currently in display. Thus, Dorricott teaches away from the claim limitation.

Furthermore, the display on the terminal of Yamakado follows the screen image of the host computer. The terminal of Yamakado serves as a remote monitor of the screen of the host computer. There is no indication that the size of the screen images is not compatible with the screen size of the terminal. The terminal of Yamakado does not need the user controlled scrolling function of the Dorricott. Application respectfully submits that the combination stated in the Office Action is not fairly suggested by the teaching of cited references.

Further, claim 52 recites:

> 52. (previously presented) The method of claim 32, further comprising:
> displaying a plurality of icons with at least a portion of the image on the screen; and
> responsive to receiving a selection of one of the plurality of icons, transmitting from the device to the remote server a message to execute a command with respect to the document at the remote server.

The Office Action suggested that it would be obvious to use a graphical web browser in Yamakado, as in Cronin, to display the screen images of the host computer of Yamakado so that the terminal of Yamakado does not require proprietary workstation software. However, a person skilled in the art understands that a graphical web browser does not generally support the special but efficient screen image processing technique described in Yamakado.

Thus, a proprietary web browser would have to be used with the technique of Yamakado, which voids the suggested motivation for the combination.

Furthermore, if the terminal had a graphical web browser, there would be no need for using the screen images of the host computer to access the web. The graphical web browser at the terminal would be sufficient to access the Internet. Thus, the specification suggested in the Office Action is not a logical conclusion from the teaching of the cited references. *It is impermissible to simply make a hindsight reconstruction of the claimed invention using the claim as a template and filling the gaps using the elements from the references.* Thus, the withdrawal of the rejections for claims 52, 75 and 96 and their dependent claims is respectfully requested.

Further, claim 40 recites:

> 40. (previously presented) The method of claim 35, further comprising:
> receiving, at the device, a user selection of the location on the portion of the image displayed on the screen;
> transmitting, from the device to the remote server, a message to indicate the user selection;
> receiving, at the device from the remote server, a message to accept keyboard entry when the remote server determines that the document accepts text input at the location corresponding to the location on the portion of the image displayed on the screen; and
> displaying a keyboard layout on the screen in response to the message to accept keyboard entry.

Clough was relied upon for the rejection. Clough (Col. 3, lines 7-13) discloses a simulated keyboard to appear on the display at appropriate times as data entry devices. However, there is no suggestion in the cited references that the keyboard layout on the screen is *in response*

to the message to accept keyboard entry, where the message to accept keyboard entry is from the remote server in response to a determination that the selected location of the text, corresponding to the location of selection on the image displayed on the portable device, accepts text input. There is no suggestion or indication for such a particular arrangement in the cited references. Thus, even if Yamakado, Magallanes, Gardell and Clough were combined, the resulting system would not meet the limitation recited in claim 40. Thus, the withdrawal of the rejections for claims 40, 66 and 87 is respectfully requested.

Further, claims 23 and 39 recite:

> 23. (previously presented) The method of claim 22, wherein the text input is received at the remote device from a touch screen keyboard; the message includes one or more matrix locations selected on the touch screen keyboard; and, the method further comprises:
> determining, at the server, one or more text characters from the one or more matrix locations to enter the text characters into the document.
>
> 39. (previously presented) The method of claim 35, wherein the text input is received at the device from a touch screen keyboard; the message includes one or more matrix locations selected on the touch screen keyboard; and, the remote server determines one or more text characters from the one or more matrix locations to enter the text characters into the document.

Ouellette was relied upon for the rejection. However, Ouellette teaches a phantom keyboard that is superimposed on a display screen of a computer. The phantom keyboard is *a local peripheral device* of the computer. If the phantom keyboard were used with the terminal of Yamakado as a local peripheral device, the terminal of Yamakado would determine the text characters from the matrix location, which is significantly different from using a touch screen

keyboard with the portable device to collect the matrix locations and using the server, which is *remote* to the portable device, to determine the text characters from the matrix locations. There is no suggestion in the cited references to use a remote server to determine the text characters from the matrix locations. Thus, even if Yamakado, Magallanes, Gardell and Ouellette were combined, the resulting system would not meet the limitations as recited in claims 23 and 39. Thus, withdrawal of the rejections for claims 23 and 39 is respectfully requested.

Further, claims 30 and 50 recite:

> 30. (previously presented) The method of claim 20, wherein the image rendered from the document comprises:
> a first layer in a reduced color depth; and
> one or more graphics portions with fine details to be overlaid over the first layer.
>
> 50. (previously presented) The method of claim 32, wherein the image rendered from the document comprises:
> a first layer in a reduced color depth; and
> one or more graphics portions with fine details to be overlaid over the first layer;
> wherein the first layer is decompressed for display on the screen before the graphics portions are decompressed.

MacLeod was relied upon for the rejection. However, MacLeod (abstract) teaches to represent an image in a three-plane representation, which includes a reduced-resolution foreground plane, a reduced-resolution background plane and a high-resolution binary selector plane. The binary selector plane is used for selecting from either the foreground plane or the background plane. This is significantly different from a representation of a first

layer in a reduced color depth and one or more graphics portions with fine details to be *overlaid over* the first layer. It is clear that the high-resolution binary selector plane of MacLeod is not overlaid over the foreground and background planes. Thus, even if Yamakado, Magallanes and MacLeod were combined, the resulting system would not meet all the limitations as recited in claims 30 and 50. Thus, withdrawal of the rejections for claims 30, 61, 82, 50, 74 and 95 and their dependent claims is respectfully requested.

Thus, Applicant respectfully submits that the pending claims are patentable over the cited references. The withdrawal of the rejections under 35 U.S.C. 103(a) is respectfully requested.

Please charge any shortages or credit any overages to Deposit Account No. 02-2666. Furthermore, if an extension is required, Applicant hereby requests such extension.

Respectfully submitted,

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